FOR PROFESSIONAL INVESTORS – March 2020

STRATEGY UPDATE

By Denis Panel and the MAQS research team

NO TIME TO SELL RISKY ASSETS

EXECUTIVE SUMMARY

- The COVID-19 pandemic has tragically already claimed the lives of over 10 000 people. Many more will die in the coming weeks. Governments have been obliged to take extreme social distancing measures to combat the virus, effectively putting society on lock-down.

- The temptation in moments of crisis is to become fixated on the worst case scenario, turn defensive and focus on preservation of capital. We think that is a mistake: now is not the time to sell. The correction has already occurred and we are already priced for pandemic and arguably panic.

- The outlook is uncertain, but that does not excuse inaction. We do not have the luxury of being able to wait until there is complete clarity about the final impact of the virus on society and the economy before taking investment decisions. Markets will price in the end game for COVID-19 long before all the uncertainty has dissipated.

- As long-term investors we need to take a stand on the ultimate human, social and economic cost of the virus and then benchmark those views against current valuations. Prices look to have over-shot, fuelled by panic and dislocations in markets. Valuations are starting to look attractive and we are looking to add risk, not reduce.

- To be clear, we believe that the situation will get worse before it gets better. There will be a catastrophic loss of life and a sharp contraction in activity in the coming weeks. The authorities may be forced to impose multiple shut-downs in the coming months to keep the virus in check. However, we believe that the global policy response will eventually turn the tide.

- We believe that a combination of factors will ultimately help society learn to live with the virus without recourse to endless shut-downs – in particular: rising acquired immunity within the population; diagnostic and serological testing on an industrial scale; increased capacity within the healthcare system to deal with acute cases; and the adoption of best practice from around the world on containment strategies outside lock-downs.

- Furthermore, we take comfort from the already significant and still building economic policy response to the crisis. The shut-downs will place huge stress on companies and households but the more the global policy response moves towards the "socialise all losses, whatever the cost" mentality, the more confident we become that the economy can weather the storm.

- The game changers are obviously the arrival of effective antivirals and ultimately a vaccine but at least as far as the latter is concerned there is a timeline of many months of trials ahead of us to demonstrate that any vaccine is safe, and that will be difficult to compress. However, credible news on progress will likely cause the market to fast forward to the end game.

- There are obviously risks around this baseline scenario, and in particular around the number and duration of shut-downs that the authorities will need to impose, and, around the delay in producing effective antivirals and a vaccine. We will update our view and our call on the market as news arrives using a number of key signposts – on the behaviour of the virus itself; on the public health response; on the economic cost of the shut-downs; on the economic policy response; on the state of business and consumer confidence; and on investor expectations.

- Equity valuations are starting to look attractive: our dashboard of valuations metrics across jurisdictions has shifted from red to green. The S&P 500 has fallen by about a third, reflecting a decline in both earnings expectations and a decline in the P/E ratio, despite much lower bond

yields. Further declines in earnings expectations pose a downside risk to valuations – particularly in a multiple shut-down scenario – but the significant increase in the equity risk premium could act as a cushion for bad news ahead on earnings.

STRATEGIC ROADMAP

These are extraordinary times. The death toll from the Coronavirus outbreak could potentially run into the millions. Governments around the world are taking extreme measures on a daily basis that are unheard of in peacetime because to put it bluntly, humanity is at war with the virus. Civil society is about to go, or has already gone, into lock-down in most of the developed world to prevent a catastrophic loss of life. This may prove to be a regular occurrence in the months ahead.

The virus will have a profound economic impact. Economies will experience sudden and severe contractions in production and consumption. That is an inevitable consequence of the social distancing measures that are being deployed around the world. Companies will face a formidable squeeze on cash flow and those individuals who do not enjoy the security of stable full-time employment could suffer a dramatic loss of income. There is a real risk that a short, sharp shock of recession could morph into a depression without a forceful economic policy response around the globe. But with every passing day, fresh measures are being announced. Indeed, we are struck by how quickly truly radical measures such as Eurobonds, minimum income guarantees and monetary financing of deficits have started to be discussed as possible solutions.

This is a lot of news for markets to digest. Recent weeks have seen wild gyrations in asset prices. The price of risk assets tumbled and the price of safe assets soared. Inevitable corrections in valuations were surely exacerbated by the near-complete absence of liquidity. For understandable reasons, many investors may be contemplating worst-case scenarios and now turning towards defensive preservation of capital strategies after prices have corrected. But markets are already pricing pandemic and panic.

This is not the time to sell. Indeed, as long-term investors we are monitoring valuations and coming to the conclusion that they look attractive, and we are looking for opportunities to *add* risk, not reduce.

In the rest of this note we discuss the three key elements of our fundamental strategy call – our view on the virus, our view on the outlook and our view on valuations – that is:

i. Know your enemy: we are not epidemiologists, we are investment professionals, but if society is at war with the COVID-19 then it is critically important to understand the virus and keep track of its progress, since this is the news that is driving markets and the public policy response.

ii. Establish a base case and identify signposts: markets are forward-looking and will process news on the virus and the policy process to estimate the end-game for the virus potentially triggering further large shifts in valuations. It is essential that we are ahead of that process and identify the key signposts which will signal the likely trajectory of markets.

iii. Keep faith in valuation metrics: the virus has triggered a seismic correction in markets that implies a major shift in views on fundamentals, a spike in risk aversion and anomalies driven by dislocation in markets. Valuations are looking attractive to the long-term investor

1) KNOW YOUR ENEMY

We are at war with COVID-19 and precisely because the disease is caused by a new virus we are not well equipped to deal with this threat. At the outset, we did not know how this virus behaved but we knew that we did not have immunity to it and we did not have a vaccine to defeat it. We are investment specialists not epidemiologists but it is essential that we stay on top of the science. Markets loathe uncertainty and news on the virus, good or bad, will set the agenda for weeks and even months ahead.

1.1) NAME YOUR ENEMY

In December of last year, an outbreak of pneumonia was detected in Wuhan, in the Hubei province of China. The cause of the outbreak was quickly identified as a novel coronavirus. The term coronavirus actually refers to a family of viruses that can cause illness in both animals and humans. Scientists have documented several different coronaviruses circulating within the human population. Some have a relatively minor health impact, causing the common cold, whilst others have a more severe impact, causing diseases like the Middle East Respiratory Syndrome (MERS) and Severe Acute Respiratory Syndrome (SARS).

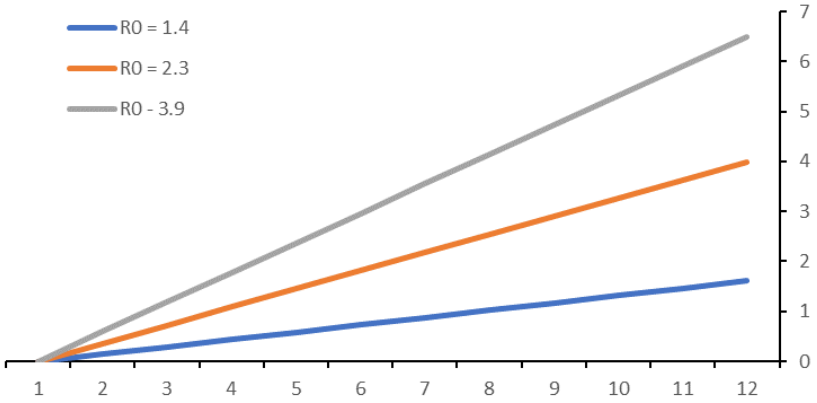
This new coronavirus was given the label 'severe acute respiratory syndrome coronavirus 2', or SARS-CoV-2 for short. In just the same way that we differentiate between the rubella virus and the disease measles, the WHO settled on the label COVID-19 for the disease that is caused by the SARS-CoV-2 virus.

The outbreak rapidly spread to every province of mainland China, and then in short order to the rest of the world, affecting 192 countries, more than 340,000 cases and 14,700 deaths as of 23 March. In fact, China has been able to rein in the virus, bringing the major transmission hotspots in China under control, such that by late February, the daily number of new cases has been higher outside China. New major epicentres have established in South Korea, Japan, Iran, and Italy. By mid-March, Europe was declared the world's major epicentre and the latest estimates suggest that the United States is lagging Europe by between 2 to 3 weeks.

1.2) THE SEASONAL FLU MISNOMER

A constant and utterly complacent refrain throughout this crisis has been the claim that COVID-19 is comparable to the seasonal flu, and that by extension, there is no reason why life and financial markets should not carry on as normal. We are learning more about this novel coronavirus each day, so we should be cautious about jumping to conclusions which are not supported by the limited evidence base. However, the data that has already been collected suggests that this claim is wrong many times over.

Chart: Exponential consequences of R0 – new cases per round of infection, log-scale*



** A one point increase on the y axis implies a tenfold increase in the new case load. So the number 6 corresponds to a million, and the number 7 corresponds to 10 million.*

First, the virus is far more contagious than the flu. Latest estimates suggest that the virus that causes COVID-19 has a reproduction number – known as R0 – of approximately 2.3 (range 1.4 – 3.9). By comparison the seasonal flu has an R0 of 1.3. So, for every person who contracts COVID-19, we should expect them to give it to 2.3 other people, and they will give it to 2.3 people and so on. Repeat the thought experiment several times and it quickly becomes apparent that we are dealing with what the scientists call exponential growth. The spread of COVID-19 is explosive. A difference of about one in the R0 of the novel coronavirus and seasonal flu translates into simply huge differences in spread. After just four rounds of transmission, four times as many people have contracted COVID-19 as have caught the seasonal flu.

Second, the disease is far harder to detect than seasonal flu. The latest estimates suggest that the incubation period – that is, how long it takes for symptoms to appear – lies anywhere in the interval between 2 to 14 days. For the seasonal flu the incubation period is more certain and far smaller at 1 to 4 days. In short, people can have the disease for up to two weeks before they become ill and studies show that significant amount of transmission can occur in that window before symptoms develop.

Third, and most important of all, COVID-19 is a greater threat to life than seasonal flu. Of course, large numbers of people die from seasonal flu each year but according to the latest data, around 5% of COVID-19 cases require hospitalization, for conditions as severe as respiratory failure, septic shock, and multiple organ failure, and around 1% requiring ventilator support. People of all ages can be infected by the virus but it appears that very few cases are seen among children. The case fatality rate (or CFR) varies significantly with age, with 0.2-0.4% for ages 10-49, 1.3% for 50-59, 3.6% for 60-69, 8.0% for 70-79 and 14.8% for those 80 and above. Older people and those with pre-existing medical conditions (such as asthma, diabetes, and heart disease) appear to be most vulnerable to becoming severely ill with the virus.

1.3) THE PUBLIC POLICY RESPONSE

The public health response to the virus has varied from place to place but the fundamental principles are the same. As outlined above, the virus spreads rapidly, is hard to detect and is a grave threat to life for the old and those with prior conditions. Given inevitable capacity constraints in the healthcare system it follows that surges in the caseload can all to easily overwhelm the ability of the healthcare professionals to provide emergency care, leading to a surge in fatalities.

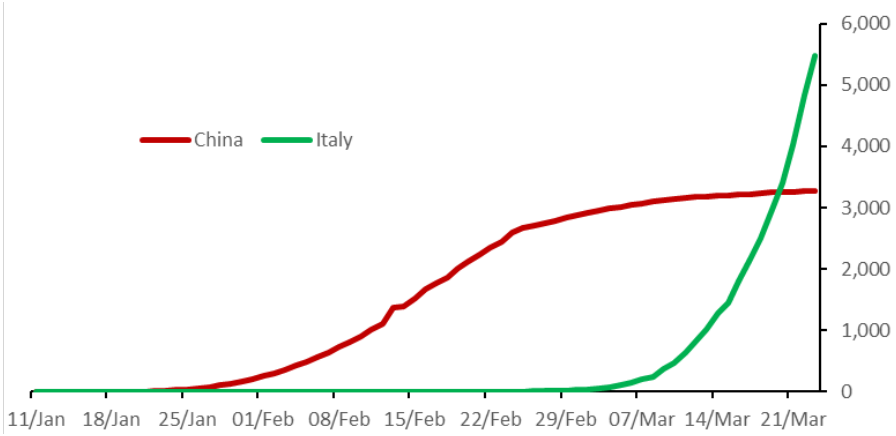
The first best solution is to contain the virus within hot-spots, self-isolating those who have or are likely to have the virus, and letting society carry on more or less as normal whilst taking sensible precautionary measures to further contain the spread. The second best solution is to adopt social distancing measures, effectively shutting down society to contain the spread of the virus, and thereby limit the flow of new acute cases reaching the hospitals.

Different policies have been pursued in different countries, which in part reflects the resources at the disposal of the state, institutional memory of past epidemics and policy choices but in part reflects circumstances. At the point where "community spread" has been reached and the virus is spreading easily and sustainably in wider society then it is difficult to implement the first best strategy. Of course, one could argue that policy choices quickly determine circumstances.

China implemented extraordinary public health measures in every sense of the word, moving swiftly to ensure early identification of cases, prompt laboratory testing, facility-based isolation of all cases, contact tracing and quarantine measures. In the community, mobility was at a near standstill, with social distancing implemented on a monumental scale. Undoubtedly, these measures came at a huge socioeconomic cost but it seems as though China was able to take back control within a matter of weeks. Meanwhile, Singapore was able to draw on its experience from SARS and MERS to quickly implement counter-measures to contain COVID-19 without lockdowns or major social disruption by concentrating on interrupting new transmission chains and keeping clusters under close control. We have seen that containment in China, Singapore and Hong Kong is possible, but we have also seen settings where control was lost temporarily. Perhaps the greatest policy success of all is in South Korea which lost control of the virus but managed to regain it without lockdowns and instead concerted application of the core principles, enhanced by using novel digital technologies for contact tracing. But technology is not a panacea. The basic lesson of dealing with the virus from North Asia is that fighting COVID-19 requires the right combination of institutions, policies, mind-set, and leadership that took threat seriously and took decisive action.

In the West, the initial focus was on detecting isolated cases, with varying application of containment measures with different lags. However, those measures proved insufficient and faced with community spread the policy response has turned to social distancing measures as the authorities wrestled to keep control of the virus. The death toll in Italy in particular has been catastrophic. Meanwhile, countries like the US and the UK look set to experience an exponential rise in infections although, measurement may lag behind reality given the limited but increasing testing capacity.

Chart: Cumulative death toll in China and Italy



Source: European Centre for Disease Prevention and Control, 23 March

1.4) THE ROAD AHEAD: THE VIRUS AND THE RESPONSE

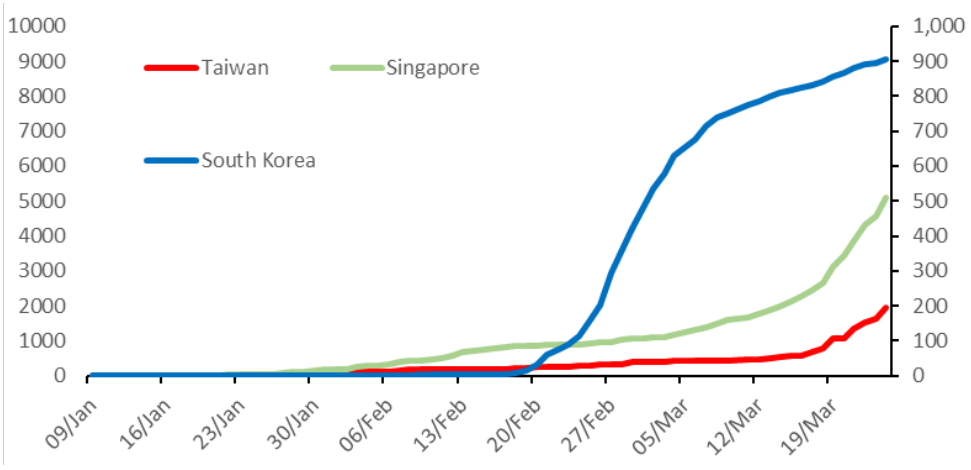
The market will not wait for complete clarity and certainty. Forward-looking investors will increasingly focus on the end-game for the virus – where we are heading in terms of the public health strategy and the socio-economic impact, and how fast we get there – and prices will respond accordingly. We repeat we are not epidemiologists, but we need to keep on top of the output from the scientific community because that news will move markets. In particular we are focused on the following themes

- The near-term loss of life given community spread: the impact of COVID-19 on mortality appears to vary from country to country even for a given rate of spread, and that likely reflects a range of factors, from demography, the incidence of prior conditions and the quality and capacity of the healthcare system. However, it seems near certain that many will die given large numbers of people in the population in old age, many with prior conditions and moreover given capacity constraints in intensive care, both in terms of equipment and personnel. Indeed, the study by the Imperial College COVID response team suggests that even an "optimal" mitigation scenario would result in the peak demand on critical care beds exceeding capacity eight times over in both the United Kingdom and the United States. In addition, even if all patients were able to be treated, they predict that there would still be in the order of 250,000 deaths in the UK, and 1.1-1.2 million in the US.

- Have Asian governments taken back control for good? There has been a lot of focus within media and markets on the caseload in North Asia and with good reason: the authorities there have managed to take back control through rapid and robust action. However, we are concerned that commentators in the West have concluded that the war has been won in the East and the virus defeated. There is always the risk that the virus will flare up, either because it is carried into the country, or because the containment strategy proves porous, or because extreme lock-down measures are lifted. If the vast majority of the population of Asia has not had the virus then it has no immunity to the virus and therefore these societies remain at risk of community spread. This war will not easily be won, and certainly not whilst relatively few people have been exposed to the virus and hence the large majority will still have no immunity. Nonetheless, the results of the measures taken in Asia speak for themselves, and the longer that those societies can function without extreme social distancing measures and without a renewed surge in cases the more they set a template for others to copy.

- Test, test, test: the capacity of the authorities to respond effectively to the virus hinges in no small part on their capacity to test. Social distancing measures carry large socio-economic costs. When this lock-down ends the authorities will no doubt be keen to avoid another. But in the absence of effective public health measures the virus will soon start to spread again. And we know that people can spread the disease long before they display symptoms. If the authorities want to implement a South Korean style response then they will need to deliver a step change in their capacity to test, so that new cases can be quickly identified and a quarantine imposed. Likewise, it is critically important to know how many people have already had the disease and acquired immunity and that requires a serological test. Once you know who has had the disease you have a much better idea of when society might reach herd immunity. Obviously, both tests are of critical importance in managing scarce resources within the healthcare system, so doctors and nurses know when they need to be away from work and when they can be at work for the foreseeable future.

Chart: Cumulative reported cases in South Korea, Singapore and Taiwan



Source: European Centre for Disease Prevention and Control, 23 March

- Treatment and cure: work on antiviral drugs and a vaccine is underway but there is a limit to what can be achieved in particular where timing is concerned. Increasing resources on research might significantly increase the probability of finding a vaccine within a given time horizon, but not significantly reduce the time to deliver that vaccine in the field. The scientists will understandably be nervous about administering a prototype vaccine to a healthy population that might have dire side-effects. According to most optimistic scenarios, the earliest available vaccine is at least 6 months away, but it could take about 18 months to complete trials, scale up production and make it widely available.

- Learning to live with COVID-19: hopefully common sense and effective communication from the authorities will help the general public make the necessary adjustments to increase the chance – or perhaps the amount of time – that society can revert back to something approaching normality. After all, it is highly unlikely that a vaccine will be available for many, many months to come. But hopefully as acquired

immunity gradually increases in the population, it will be possible for the vast majority of the population to return to life as normal without triggering a sharp rise in the case load, although this will likely require a cultural shift to mass diagnostic and serologic testing and better hygiene standards,

2) ESTABLISH A BASE CASE AND MONITOR THE SIGNPOSTS

The outlook is always uncertain. That is a fact of life for investors. Markets are in constant motion, revising views and valuations as new information arrives. Our investment horizon demands that we have a view about where the system is heading and we need to test that view against current prices. The virus outbreak is no different in this respect: we face huge uncertainty about where society and the economy is heading and we are confronted with a major correction in asset prices. We need to decide whether we think current market prices fit the facts or not.

It is a gross simplification to say that there is a particular view of the virus priced into current valuations, but we think it is legitimate to speak about prices putting more weight or importance on certain outcomes than others. Like all fundamentals-based investors, we look for opportunity in the moments and markets where in our judgment that 'market view' embedded in current valuations differs has become detached from fundamentals. We think we have found one.

Of course, we are constantly alive to the possibility that the market can be right and we can be wrong on fundamentals and the path that the system will ultimately follow. The best defence against the risk of hubris is to be as clear as possible about the core reasons why we believe the market is wrong, or at least the reasons that will ultimately determine the outcome one way or the other. That in turn suggests a set of signposts that we need to watch to determine whether we are right or wrong.

To avoid any doubt: our strategy call hinges on those signposts. We are not unconditionally bullish. The point is that we are not inert and inactive waiting for incontrovertible evidence of the end-game. If you wait for that then prices will have already adjusted and you will have sat on the sidelines, either whilst the market rallies back to peacetime prices or sold off further into a depression scenario.

Table: Key signposts

Theme	Key signposts
The virus	Evidence on how long acquired immunity persists Credible reports of progress towards a vaccine Risk tolerance in rolling out the vaccine
The public policy response	Capacity to conduct diagnostic tests Capacity to conduct serological tests Adoption of global best practice on containment measures Willingness of public to comply with protocols Capacity of intensive care system Speed with which effective antivirals can be deployed
The economic cost	Expectations of frequency / duration of shut-downs Evolution of business surveys (PMI, ISM, etc.) Industrial production Unemployment data Extreme financial distress Personal and corporate insolvency rates
The economic policy response	Overall scale of global fiscal stimulus "Whatever it costs, socialise all losses" commitments

	Progress towards monetary financing of deficits Adoption of risk taker of last resort programmes to support markets Progress towards fiscal union in Europe (e.g., issuance of Corona-bonds)
Animal spirits	Consumer confidence Business confidence and intentions on investments in new capital and jobs
Investor expectations	Sensitivity of market prices to news on virus and public policy response Market commentary on likely public policy response

In the next section of this note we discuss valuations, opportunities and ultimately our asset allocation strategy in more detail. But having reviewed the key features of the virus we now turn to discuss the key signposts that we are monitoring that are summarised in the table.

SIGNPOST 1) THE VIRUS AND THE VACCINE

The key issue we need to grapple with is the virus and the pursuit of a vaccine. News on the successful re-purposing of existing antivirals to treat the disease and ultimately progress in the development of a vaccine are the most important signposts of all. There is obviously a risk here of false positives but we suspect that significant news from credible sources will have a material impact on market sentiment.

As we discussed above, we are learning to know our enemy better. We know how it spreads and we know how long it takes for symptoms to emerge. But we do not yet know this novel coronavirus well enough to be able to predict how long it takes to reach the end game. It would appear that above all, we need to know whether the virus is well behaved or not – by which we mean stable or not.

Mutation is a biological fact of life; what matters is how fast the virus mutates and whether those mutations are more or less lethal to human life. If the virus mutates slowly then it follows that those people who have already been exposed to the virus should retain immunity for an extended period of time. That in turn implies that society can achieve herd immunity more quickly – that is, the state at which a sufficient number of people have immunity that the spread of the virus slows because most of the people who come into contact with an infected person are already immune. Given the R0 of the virus, scientists estimate that it may take in the region of 60% of the population to have been exposed before we acquire herd immunity. It also seems likely that if the virus is stable then it will be easier to engineer a "one size fits all" vaccine.

If, on the other hand, the virus mutates rapidly and in particular into more lethal forms, then immunity will be quickly lost and the search for a vaccine will be far more complex. It follows that the disruptive impact on society and the economy will be more long lasting and hence more severe.

It will take time to develop a vaccine. But it will also take time to prove that the vaccine does not have dangerous side effects. There will be reluctance to cut corners both because of the potential to do great harm when rolling out a potentially harmful vaccine to billions of people around the world, but also because of the indirect damage done, if a misstep erodes confidence in all vaccines. However, there will also be pressure to move swiftly, and it may be that the vaccine is rolled out to high-risk individuals.

SIGNPOST 2) THE PUBLIC HEALTH RESPONSE

The key consideration driving the public health response right around the developed world is what we call ***the fundamental flow inequality constraint of managing COVID-19***:

> *The flow of new acute cases cannot be allowed to overwhelm the capacity of the primary healthcare system to deal with those cases in any given moment*.

Failure to satisfy the inequality means that demand exceeds supply, the system is unable to cope and intensive care will be rationed with tragic consequences. Despite the huge economic cost attached to the shut-downs, the authorities have been forced to adopt extreme social distancing measures in many countries as a last resort to slow the flow of new cases and satisfy this constraint.

If the authorities cannot find other less disruptive means to satisfy this constraint when the measures are lifted then it seems near certain that further rounds of extreme social distancing measures will be required, and that entails major economic collateral damage. Conversely, if society can learn to live with the virus that would obviously be a huge positive for the market. This is where we think news on the case-load in South Korea and elsewhere in Asia fits into the picture. The more evidence there is that economic life can go back to more or less normal for a sustained period after a shut-down the more faith investors will have that the global economy can ride out a temporary disruption.

We have already highlighted how the public health response has differed across countries, reflecting different choices, circumstances, resources, and past experience of dealing with epidemics. Those different responses have had very different implications for the disruption to society and the economy. Clearly, if a strategy can be devised that simultaneously protects human life with minimal economic disruption then the authorities will swiftly move to adopt it – if they have the capacity to do so – in preference to further social distancing measures. For example, that strategy may involve a combination of efficient identification and containment of new cases coupled with ongoing social distancing of those at higher risk of severe outcomes.

We can think of a number of ways in which the authorities in concert with the actions of the general public can influence this basic demand versus supply inequality and hence a number of potential signposts:

- The capacity of society to contain and suppress the spread of the virus: There are a range of factors which determine the authorities' control over the flow of new cases: first and foremost the capacity of the authorities to conduct diagnostic testing; the effectiveness of self-isolation measures for individuals that have either contracted the virus or are likely to have done so; and the willingness of the general public to follow common sense procedures. The support of the general public is clearly critical here and in societies where individuals are less inclined to follow official advice, governments may need to resort to more draconian measures if they are unable to persuade the population.

- The capacity of the system to deal with the sick: There are a range of factors which determine the capacity of the healthcare system to manage the flow of new cases: the current stock of respirators and staff trained to use them and the speed with which capacity can be increased; the delay before effective antivirals can be introduced; and the speed with which diagnostic and serological testing will minimise the loss of healthcare professionals to self-isolation.

Of course, the single largest unknown for the authorities is the number of people who have already been infected and (hopefully) now have an immunity. A serological test is therefore a potential game changer because it will allow the authorities to estimate when herd immunity will be reached and therefore when shut-downs are no longer necessary. Clearly, the arrival of that test and reports of data on rates of acquired immunity will be key news for the market.

SIGNPOST 3) ECONOMIC COST OF SOCIAL DISTANCING

The outbreak of the virus was obviously a major shock for financial markets. But it very quickly became clear that markets would have to process more than just the social cost of the crisis in terms of the catastrophic loss of human life. It was apparent that many countries would have to deploy measures similar to those adopted by the Chinese authorities and it was clear that these social distancing measures would have severe economic consequences.

It is very difficult to know precisely how large the impact on economic activity will be during these lock-downs. For example, the Frankfurter Allgemeine reported that unpublished ECB estimates of the hit to Eurozone activity ranged between 2% and 10% with a central estimate that a three month lock-down could impose a 5% hit on growth.

One way to think about the impact on activity is to estimate the likely depth and duration of the reduction in the quantity of labour input on account of the social distancing measures. Simply put, the more severe the lock-down and the longer it lasts, the larger the effect. Equally, once the measures lapse then employment should return back close to normal level – assuming no lasting and major damage to labour demand – although there will be still be an abnormally large number of people absent from the workplace due to sickness. The level of output and employment will therefore oscillate back and forth but likely remain below trend throughout the period, being far from trend in the shut-downs and much closer to trend otherwise. The pace of economic growth will be more volatile, moving below and above trend in the shut-down and return to normality phases.

We will learn more about the economic hit from a shut-down in the weeks ahead as data arrive. First will come data from the business surveys (the PMI, the ISM, the IFO and so on) which provide a timely insight on the state and the psychology of the corporate sector but are less helpful in gauging the extent of the decline. Next will come official data, and of particular interest will be numbers on unemployment, because it speaks to both the extent to which companies are using lay-offs as a release valve to manage the squeeze on cash flow and to the hit on disposable income and confidence. The monthly series on production and retail sales will provide some sense of the decline in economic activity from one month to the next. Last will come the official estimates of GDP. Of course, all these data come with a health warning since the virus is likely to impact the collection and processing of data.

The key economic question is whether the economy can survive the transitory shut-down without suffering sustained significant long-term damage. We know that companies will be caught in a multi-dimensional vice, squeezed by disruptions along their supply chains, absence of workforce, delayed payment of trade receivables, collapsing demand from customers and potentially withdrawal of financing from creditors. Without support from the public sector and private sector creditors, many companies could slash employment and investment in an attempt to survive, and many could fail. Likewise, individuals who suffer a severe drop in disposable income – whether the self-employed or those on flexible contracts or those let go by their employer – could come under similar financial pressure if there is no support. Data on financial distress and insolvency in the corporate and household sector are thus of particular interest in this crisis.

What is clear is that this cost of social distancing can be paid more than once. If the authorities reintroduce these measures and put society in lock-down, then activity will grind to a halt again. Two uncertain hits to national income are worse than one. Perhaps the key determinant of the economic cost to society from the virus is therefore how many times these measures are introduced and for how long. We suspect that of all the sign-posts we discuss in this note, this is one of the most important.

SIGNPOST 4) ECONOMIC POLICY RESPONSE

The lesson many investors appear to have learned over the last decade is to believe in the power of central banks to save our souls – that the promise of decisive monetary action creates a put not too far below market valuations however high they climb, and that in the words of the greatest central banker of his time, central banks are "ready to do whatever it takes…. And believe me, it will be enough." In the opening act of this crisis, markets had to learn a painful lesson that monetary easing cannot be enough to deal with the threat of a virus. Indeed, we have had not one but two emergency interventions by the Federal Reserve and neither proved sufficient to turn the tide. Markets were forced to confront awkward questions: what would constitute *enough*? By *whom*? And would it be delivered in time? The evolution of economic policy will remain a key signpost in this crisis.

Table: Key measures by the European Central Bank, Federal Reserve and Bank of England

Central bank	Policy measures
European Central Bank	More favourable targeted longer-term refinancing operations (TLTROs) designed to support lending to SMEs, with funds available at a rate potentially as low as 25 basis points below the deposit rate and with counterparties allowed to borrow a larger amount (up to 50% of their stock of eligible loans as at 28 February 2019) which across the system as a whole translates into more than €1 trillion. And as a bridge to manage the system through until the launch of the new TLTROs, additional longer-term refinancing operations (LTROs) to provide access to funds at the deposit rate. Temporary envelope of additional net asset purchases of €120 billion over the course of 2020, with the additional purchases skewed towards private sector securities. Envelope of asset purchases then expanded by further €750 billion in new Pandemic Emergency Purchase Programme (PEPP), with purchases conducted until the at least the end of 2020. Range of eligible assets under the corporate sector purchase programme (CSPP) expanded to non-financial commercial paper. Collateral framework eased to make the Eurosystem's refinancing operations more effective, in particular with respect to loans to corporates. Clear signal: to increase the size or composition of purchases, by as much as necessary and for as long as needed. Signal that issue limits may be relaxed. ECB's Supervisory Board provides temporary capital and operational relief to euro area banks. ECB estimates that €120 billion of capital relief could be used to absorb losses or potentially finance up to €1.8 trillion of lending.
Federal Reserve	150 basis points of rate cuts Resumption of asset purchases: initially, at least $500 billion of Treasury securities and at least $200 billion of agency mortgage-backed securities; later scaled up to whatever it takes to "support smooth market functioning and effective transmission of monetary policy" Significant injection of liquidity within system and creation of Primary Dealer Credit Facility (PDCF), a loan facility designed to improve the ability of primary dealers to gain access to term funding. Creation of multiple facilities to support the flow of credit, providing up to $300 billion in new financing, with the Treasury Department using the Exchange Stabilization Fund (ESF) injecting $30 billion in equity to these facilities which include: Primary Market Corporate Credit Facility (PMCCF) and the Secondary Market Corporate Credit Facility (SMCCF) to support large companies via operations in primary and secondary market; Term Asset-Backed Securities Loan Facility (TALF), to support the flow of credit to consumers and businesses; and Money Market Mutual Fund Liquidity Facility (MMLF) and Commercial Paper Funding Facility (CPFF) to support the flow of credit to municipalities. Main Street Business Lending Program in the pipeline, designed to support lending to eligible small-and-medium sized businesses.

	Encourages banks to use their capital and liquidity buffers and cuts reserve requirement ratios to zero.
Bank of England	65 basis points of rate cuts. Resumption of asset purchases, with a £200 billion increase in holdings of UK government bonds and sterling non-financial investment-grade corporate bonds. Pace of gilt purchases will be higher than in the past and set in response to market conditions and to support market functioning. Launched a Term Funding Scheme (TFSME) that provides four-year funding to banks in volumes linked to their lending to the real economy (10% of participants' stock of real economy lending) at a rate very close to Bank Rate. Additional funding will be made available for banks that increase lending, especially to SMEs. Bank of England estimates the TFSME could provide in excess of £100 billion in term funding. Covid Corporate Financing Facility (CCFF) designed to support larger companies through the purchase of commercial paper of up to one-year maturity. Scheme open to companies that make a material contribution to the UK economy and will look through impact of virus on credit quality. UK countercyclical capital buffer rate reduced to 0% of banks' exposures to UK borrowers for at least 12 months. Bank of England estimates that the release of the countercyclical capital buffer will support up to £190 billion of bank lending to businesses. Banks signals that all elements of banks' capital and liquidity buffers can be drawn down as necessary to support the economy through this temporary shock

Investors are impatient at the best of times, but the demand for action has been insatiable and the market commentary can give the impression that policymakers have been dragging their feet. We do not share that assessment. On the contrary, we are encouraged by the measures that have already been announced and we sense that policymakers "get it" and will continue to provide more stimulus in the emergency phase of the crisis. The tables describe the long list of creative measures that have been deployed by just three of the major central banks and fiscal announcements by just the three largest European countries. The cumulative monetary and fiscal stimulus is building.

More may still need to be done – we are still waiting for the final details on the US fiscal package – and some policymakers may have moved earlier or by more than others, but we see both of the key policymakers acting in concert around the globe:

- Central banks (and supervisors): easing the stance of monetary policy, within the constraints of the limited ammunition at their disposal; providing cheap funding to banks with incentives to lend; providing funding directly to companies through core capital markets; injecting liquidity into core wholesale markets to prevent them seizing up; easing capital requirements on banks to encourage lending;

- Finance ministers: a package of measures guided by the over-arching principle of "whatever the cost… socialise all losses" – providing credit guarantees and loans to companies, principally to allow them to stay in business and retain and pay workers; easing cash flow within the corporate sector by deferring tax liabilities and utility bills and providing particular targeted support to the most hard-pressed sectors; providing income support to those who are out of work because of the virus and sick pay to those who fall ill; and even direct payments to all households.

Indeed, we are struck that truly radical ideas – whether that be cash payments to all households, the idea of monetary financing of deficits by central banks or central banks acting as a risk taker of last resort, buying risk assets to restore calm to febrile markets – that were only weeks ago at the margins of the debate are now being seriously discussed within policy circles. Indeed, within Europe, there is a clear sense of rapid progress towards the principle of issuing Eurobonds to finance the policy response (so-called Corona-bonds) which would seemingly compress a decade or more of glacial progress towards fiscal union into a matter of weeks. So we continue to be reassured by progress on this front but we must remain vigilant for the risk that fatigue sets in within policy circles.

SIGNPOST 5) ANIMAL SPIRITS

The policy response has been focused on the very immediate term for obvious reasons: it is about keeping people alive and keeping the economy on its feet in coming weeks. That is the right thing to do. It is to be hoped that healthcare practitioners can minimise the death toll and finance ministers and central bankers can nurse the economy through a hugely disruptive period. Even when the authorities gain some semblance of control over the virus through some combination of diagnostic and serological testing on an industrial scale and the emergence of antivirals, there may still be a significant economic issue that markets will have to digest and price. A major crisis could easily shake consumer confidence, triggering a sustained

period of precautionary savings that would systematically weigh on domestic demand. Likewise, elevated uncertainty about the macroeconomic outlook could easily cause companies to delay investment in either new capital equipment or new jobs. Indeed, these two risks are likely to be synchronised: companies will be tend to be more cautious in an environment where households are reluctant to spend.

In normal circumstances, we would expect a forceful response by central bankers and perhaps finance ministers to sustained weakness in demand. However, these are not normal circumstances: central banks will have exhausted almost all ammunition in fighting the virus, there will be precious little left to win the peace; and finance ministers may be starting to worry about debt sustainability again by this point. However, it should be noted that the European Commission has already taken action to support spending, activating the 'general escape clause', to encourage governments to 'inject spending into the economy as needed' in the words of Commission President von der Leyen.

So there is a concern in our mind that the economy could become stuck in a rut of low or even no growth after the short, sharp shock of the social distancing measures. That scenario would not be so supportive of a rally back in risk assets. Measures of consumer and business confidence – or for want of a better phrase, 'animal spirits' – are therefore a key signpost in our mind. Where the corporate sector is concerned, employment and investment intentions could also contain useful information.

Table: Illustration of key fiscal measures in three largest European economies

Germany	EUR bn	% GDP
Stimulus package (13 March)	67	1.9
Extra public investment of EUR 3.1 bn *per year* 2021-2024	3	0.1
Threshold for reduced hours subsidy lowered and employers' social security contributions covered	19	0.5
Tax deferrals	5	0.1
Grants and loans for micro-firms tax deferrals	40	1.1
Supplementary 2020 budget ^ *	156	4.6
Additional healthcare spending	3.5	0.1
A 'Hardship Fund' for small firms and the self-employed	50	1.5
Easier access to the basic social security system (Grundsicherung)		
KfW guarantee envelope	553	16.1
Economic Stabilization Fund (WSF) ^ **	600	17.5
Guarantees of up to five years on companies' debt securities to help them raise funds	400	11.7
Inject equity into troubled companies	100	2.9
Refinance KfW lending programmes	100	2.9

^ Awaiting parliamentary approval

* Creates the necessary financial framework for the previously announced measures (assumed 33.5bn euros fall in tax revenues and 122.5 bn euros of increased spending) in addition of stimulus

**Wirtschaftsstabilisierungsfonds or WSF is a fund for large companies (250 or more employees)

France	EUR bn	% GDP
Stimulus package (17 March)	45	1.7
Emergency spending	2	0.1
Relaxation of existing rules	0.5	0.0
Payment of salaries (2 months) for people forced to stop work	8.5	0.3
Cancelled or deferred taxes and social charges	32	1.2
"Solidarity Fund" to firms which have lost >=70% of their turnover YoY in March 2020	2	0.1
French State guarantees of bank loans to businesses	300	7.1
Bank loans guarantees from European Institutions	1000	

United Kingdom	GBP bn	% GDP
Coronavirus support measures in UK budget (11 March)	12	0.5
Coronavirus emergency response fund for NHS	5	0.2
Additional funding for statutory sick pay. Easier access to universal credit and hardship grants	2	0.1
Cuts to businesses rates	5	0.2
Additional measures (17 March)	20	0.9
Business rates' relief and expanded scheme of grants to small business	20	0.9
Additional measures (20 March)	70	2.7
Coronavirus job retention scheme*		
Additional support for people on welfare benefits	7	0.3
Support for renters	1	0.04

Loans guarantee on business lending	330	15

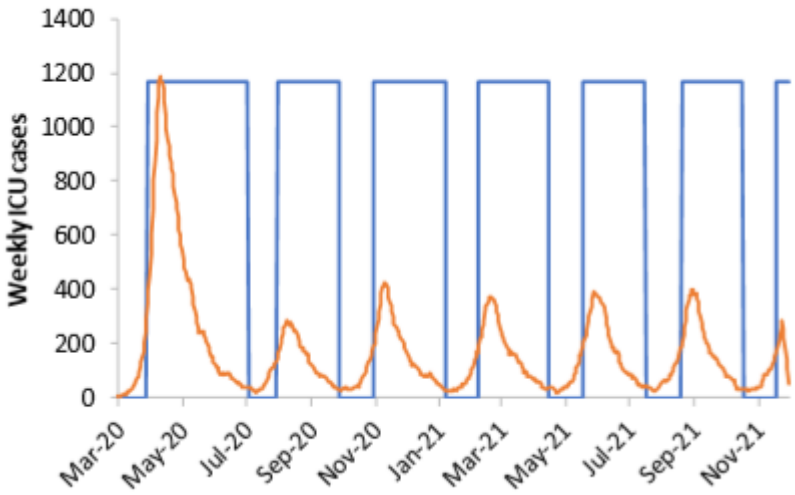
*The state will pay 80% of the salary of workers who would otherwise be laid off by their employers, up to a total of GBP 2 500 a month

Sources for tables: BNP Paribas Asset Management, Citi, JPMorgan, HSBC, Morgan Stanley

SIGNPOST 6) ALIGNING EXPECTATIONS

The final signpost we want to highlight has to do with the expectations of the investor community and broad commentariat. We believe that current valuations have become detached from fundamentals: we are priced for pandemic and we believe that if any when good news arrives, particularly on antivirals and vaccines there will be a correction. That having been said, we are not convinced that the market is fully prepared for the bad news that may arrive in the meantime.

Chart: Simulated toggling off and on of suppression strategies with demand for ICU



Source: Imperial College COVID-19 Response Team, 16 March

Paradoxically then, our final signpost is when and whether the market fully embraces the near-term social and economic consequences of the virus. Many people will die. The contraction in economic activity will be severe and multiple shut-downs may be necessary to contain the virus in the short-run as the simulations from the Imperial College COVID-19 Response Team illustrate. That in turn would imply a much larger cumulative economic cost. As reality dawns, prices may over-shoot even further (to the downside) creating an even bigger opportunity.

This sign-post is hard to monitor but one way to ascertain whether the market has come to terms with the strategy that the authorities are pursuing is when prices are no longer sensitive to news about the public policy response as it unfolds along the trajectory we have described. Another way to assess investor expectations is to keep track of the research and commentary that is published by investment professionals and to monitor whether views are converging on reality.

OUR BASE CASE AND THE KEY RISKS

Having discussed these key signposts we are now in a position to flesh out our base case. We want to be crystal clear about the fact that we believe that the situation will get worse before it gets better. There will be a catastrophic loss of life and a sharp contraction in activity in the coming weeks. The authorities may be forced to impose multiple shut-downs in the coming months to keep the virus in check. However, we believe that the global policy response will help to turn the tide.

We believe that a combination of factors will ultimately help society learn to live with the virus without recourse to endless shut-downs, and in particular: rising acquired immunity within the population; diagnostic and serological testing on an industrial scale; increased capacity within the healthcare system to deal with acute cases; and the adoption of best practice from around the world on containment strategies.

Furthermore, we take comfort from the already significant and still building economic policy response to the crisis. The shut-downs will place huge stress on companies and households but the more the global policy response moves towards "socialise all losses, whatever the cost" the more confident we become the economy can weather the storm.

The game changers are obviously the arrival of effective antivirals and ultimately a vaccine, but at least as far as the latter is concerned there is a timeline of many months of trials that will be difficult to compress. However, credible news on progress will likely cause the market to fast forward to the end game.

There are of course risks around this base case. We highlight two in particular which seem particularly relevant to any discussion about valuations.

i. If the virus is not well behaved, if it mutates rapidly then acquired immunity may be lost almost as quickly as it is secured and it may prove harder and take longer to obtain a 'one size fits all' vaccine. In other words, the war against the virus will take longer to win.

ii. If the authorities are unable to contain the spread of the virus within everyday society then they are likely to have to resort to the extreme social distancing measures on a more regular basis. In other words, the economic cost of fighting the war will be higher.

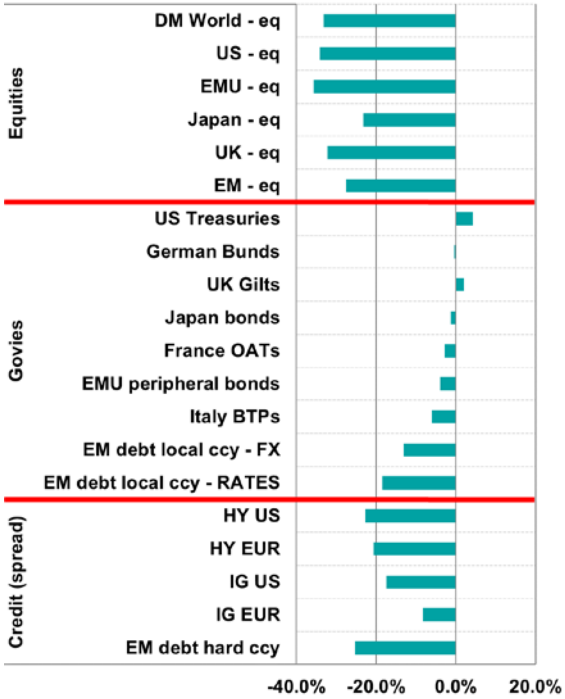
3) KEEPING FAITH IN VALUATIONS

When markets crater and volatility spikes the natural instinct is to become defensive, to focus on the worst case scenario and shift to a return of capital and not return on capital mentality. That can prove to be an expensive strategy. This is not the time to sell in our view because markets have already adjusted. We are priced for pandemic and arguably panic. Indeed, valuations look attractive in our base case scenario so we are looking for opportunities to add risk. In this section we review our basic valuation metrics and then carry out a deep dive on the focal point of the discussion: the equity market.

3.1) PRICED FOR PANDEMIC AND ARGUABLY PANIC

One thing is clear, the size of the moves since the mid-February highs are large against any yardstick. Global equity markets are down between 20%-40% while credit spread returns (which exclude sovereign returns/losses) are down between 5%-20%. In what follows we analyse whether those selloffs represent interesting valuations from a historical perspective and within three asset classes: equities, credit and government bonds.

Chart: Extreme risk-off since mid-Feb equity highs

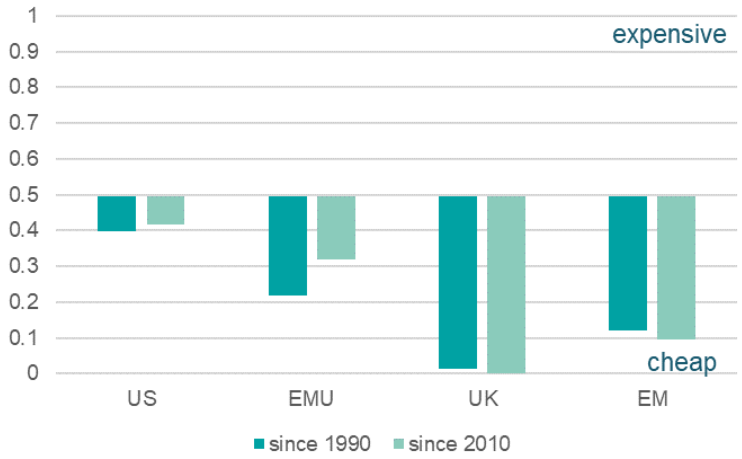


Source: Bloomberg and BNPP AM, as of 23/03/2020

Equity valuations

One way to assess equity valuations is by looking at cyclically adjusted price-earnings ratios (CAPE). These ratios are the result of dividing equity prices by a rolling five year average of corporate earnings. This valuation metric 'looks-through' corporate earnings cycles that sometimes distort the traditional price-to-earnings ratios, especially around earnings recessions. We can rank the data into each of the major markets in percentiles over two time period: since 1990 and since the end of the global financial crisis (2010). In each case, a value of 1 means that these markets are historically at their most expensive CAPE valuation, while zero means they are at their cheapest levels. The percentile ranks show that CAPE measures are below their historical median (0.5 level) for all major equity markets. They are close to their cheapest level historically in the UK and less so in the US. From this perspective alone, one would favour the UK over other markets, notably the US.

Chart: Cyclically adjusted PE (percentile rank: 1 = expensive, 0 = cheap)



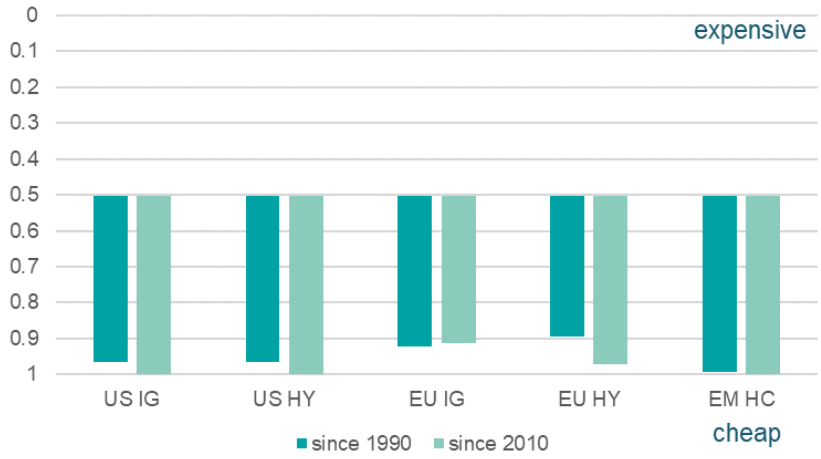
Source: Bloomberg and BNPP AM, as of 23/03/2020

Overall, we conclude that the current selloff has taken valuations from the post global financial crisis highs to interesting levels across the board. Purely from a valuation point of view, the UK markets looks cheap and the US less so. This makes the US market more vulnerable to setbacks than other markets, especially if the COVID-19 crisis gets much worse there. But of course there are other factors that play into the decision. For example, we favour the US market due to its relative economic flexibility and its aggressive policy responses in times of crisis. We also favour the Eurozone equity market due to the prospect of aggressive policy stimulus (potentially including Eurobonds). Finally, we like EM because we believe China is a step ahead in terms of virus control and has deployed plenty of stimulus to support corporates and households. In addition, owning equities in three different major markets after a large global shock also helps to diversify our equity exposure by region.

Credit valuations

We asses value in credit markets by comparing credit spreads with their historical norms using percentile ranks. Credit spreads are above their historical median values across the board meaning that they are historically cheap, especially relative to the levels of spreads that prevailed after the global financial crisis of 2008-09. Spreads also appear to have cheapened a bit more in the US compared to the Eurozone. Following the euro crisis of 2011-12, credit spreads tightened materially supported by the ECB QE programme which involved purchases of corporate bonds. This is most likely to be the case again as the ECB has extended its QE programme, more recently in the form of the Pandemic Emergency Purchase Program (PEPP). The latter has committed €750bn to purchase private and public sector securities. Overall, we think corporate bond spreads look attractive, but we are also aware of the liquidity issues that they present in times of crisis.

Chart: Credit spreads (percentile rank: 1 = cheap, 0 = expensive)

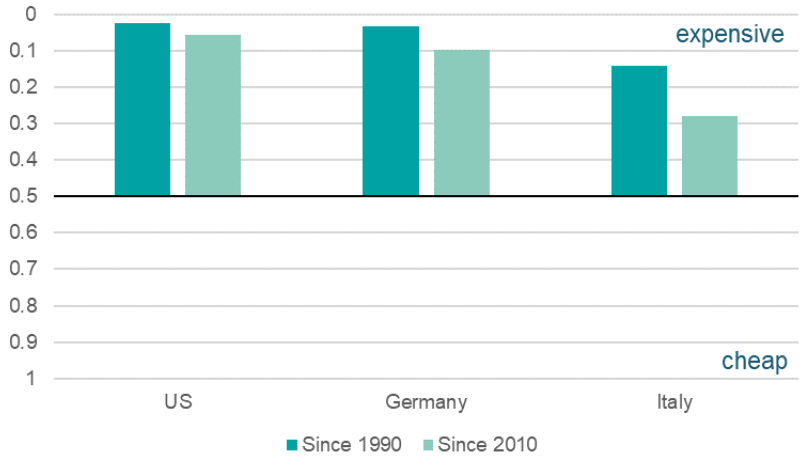


Source: Bloomberg and BNPP AM, as of 2303/2020

Government bonds

We asses value in government bonds by comparing real bond yields versus their historical norms also using percentile ranks. We prefer to use real bond yields rather than nominal yields because in previous decades (especially in the 1990s) the latter were much higher due to more elevated inflation rates. Currently, real bond yields are historically low across the board, and especially so in major core markets like the US and Germany. Italian government bonds (BTPs), while still expensive, have cheapened recently as the Corona crisis has reawakened worries about debt sustainability and economic fragility in Italy, notably after last week's ECB meeting when President Lagarde mentioned that their mandate was not to influence sovereign spreads. The Pandemic Emergency Purchase Program (PEPP), however, is easing those fears somewhat. If the ECB commitment to support the stability of the euro and its markets is complemented by a coordinated fiscal expansion, potentially guaranteed by EU sovereigns (along the lines of the so called Eurobonds) then the risk premium on euro assets should fall. Yields on German bonds -the ultimate safe havens in the euro area- should therefore rise as a result.

Chart: Government bonds, real yields (percentile rank: 1 = cheap, 0 = expensive)



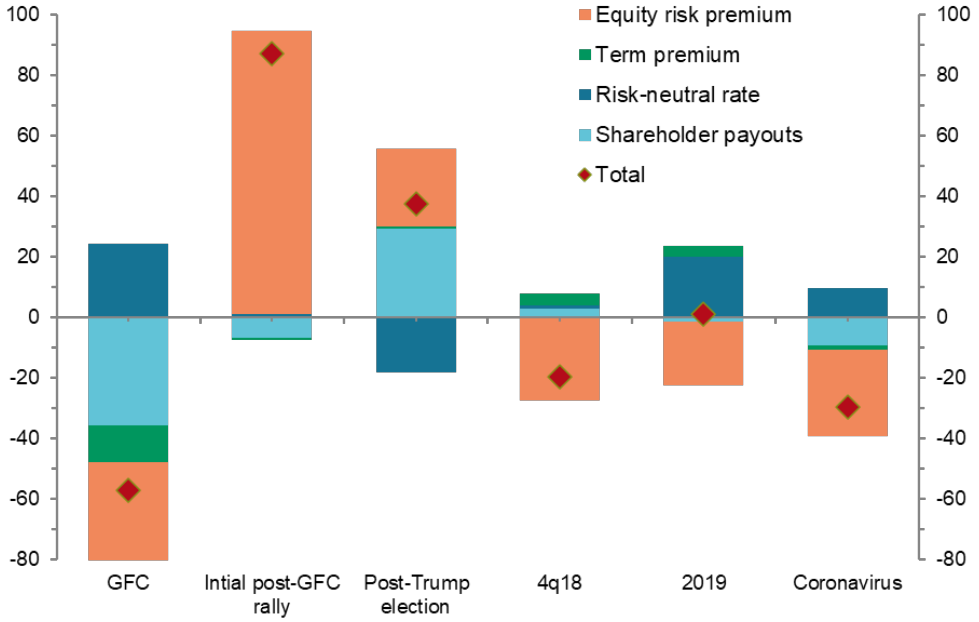
Source: Bloomberg and BNPP AM, as of 18/03/2020

3.2) DEEPER DIVE ON EQUITIES

In the final sub-section of this note we focus on the equity market, and the S&P 500 in particular, because we think this market is the most straightforward and relevant expression of our strategy call: prices have already moved; this is not the time to sell; we are looking to add risk.

The correction in the equity market has been dramatic. From peak to trough, the S&P 500 has fallen by around a third. We can use a Dividend Discount Model (DDM) framework to explain that change in the index into the contribution from news on shareholder pay-outs and news on the discount rate, where we can decompose the latter into the contribution from bond yields (via a risk neutral rate and a term premium in long-term government bond yields) and a residual, equity risk premium.

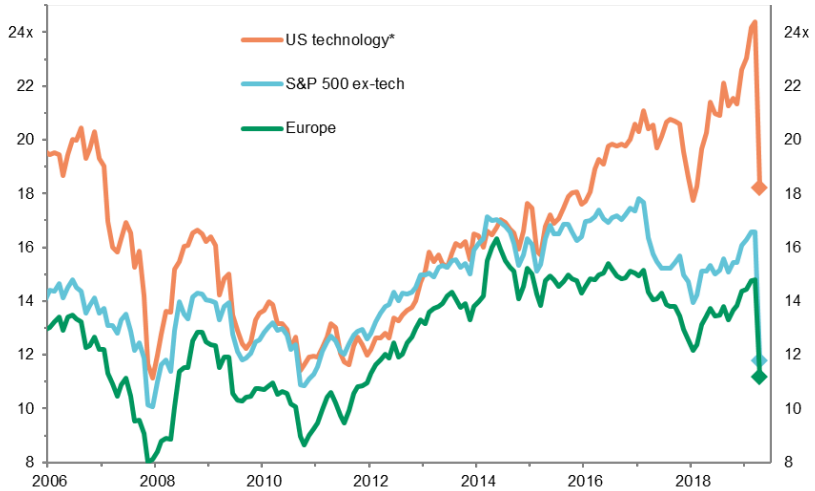
Chart: Accounting decomposition of equity moves: pay-outs, bond yields and ERP



Sources: BNP Paribas Asset Management, Bloomberg, IMF and FactSet

News on earnings can certainly help explain the decline in stocks: around half of the fall can be accounted for by lower shareholder pay-outs. The remainder is accounted for news on the discount rate despite the fall in bond yields described above. The reason? A significant widening in the equity risk premium. In other words, the decline in equities has been driven by both a correction in earnings and the discount rate that determines the P/E multiple. Where the latter is concerned, there has been a meaningful correction: in Europe P/E ratios are back to levels last seen in the sovereign debt crisis when the 10-year Bund yield was around 2% rather than been stuck below zero.

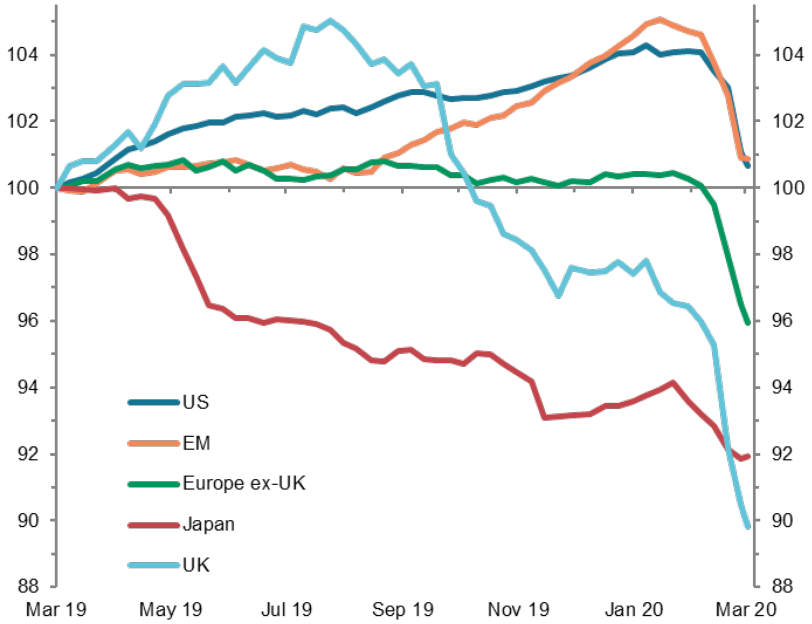
Chart: US and Europe equity market forward price-earnings ratio



*Source: BNP Paribas Asset Management and FactSet; *Includes the information technology sector, Internet & direct market retail, movies & entertainment, and interactive media & services.*

In point of fact, the news on earnings has thus far been relatively contained. For example, estimates for 2020 EPS have declined only about 5% or $10/share to $168 and consensus estimates still project EPS growth this year vs 2019 of 3.4%. This does pose a risk to valuations going forward – particularly in the risk scenario highlighted above: multiple instances of protracted shut-downs are likely to take a heavy toll on earnings. We can see that basic process playing out: as the market prices in the growth slowdown, equity analysts are marking down their earnings expectations for the next twelve months. The steepest reductions are for the UK, though this reflects the high share of energy companies in the large cap equity indices. Japan is somewhat resilient but only because revisions have already been negative for most of the last year.

Chart: Earnings estimates and revisions

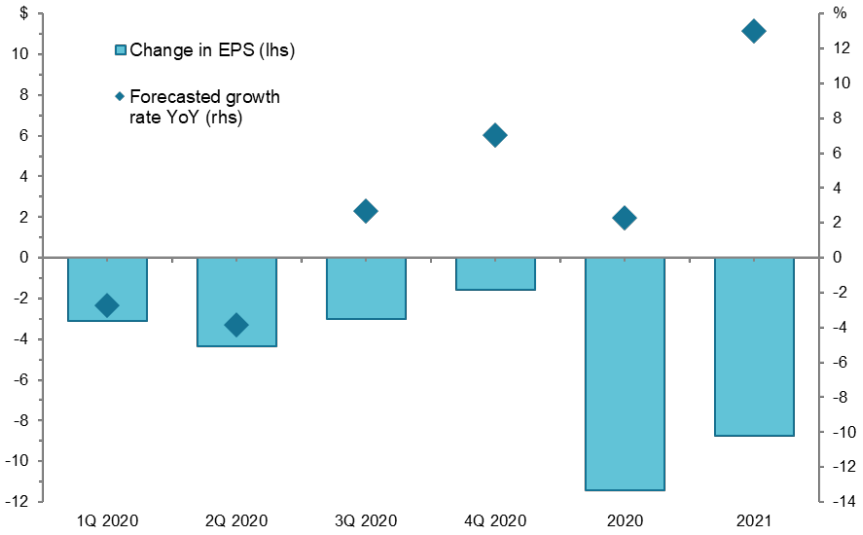


Sources: BNP Paribas Asset Management and FactSet

From a conceptual point of view, the significant increase in the equity risk premium will capture a perceived increase in both the quantity and price of risk – that is, investors now demand higher compensation for holding stocks because they perceive a greater risk to their capital and because they have become more risk averse. From a practical point of view, the higher equity risk premium may also be acting as a buffer, reflecting investor concerns about the potential for earnings to be revised lower. If that is the case then valuations may prove more robust to earnings mark-downs than one might otherwise expect, because the earnings risk premium may unwind alongside that news.

Chart: Change in S&P 500 EPS estimates and current expected EPS growth rates

EPS change from 17 January 2020



Source: BNP Paribas Asset Management and FactSet

Statements about absolute valuations are always fraught with difficulty, both because of the range of candidate metrics and because of the obvious difficulty in identifying when equities are cheap enough. But what can be said is that there has been a significant shift in many of these metrics across multiple jurisdictions. Before the crash, many of these metrics were in expensive (red) territory. Now the dash-board shows many of the valuation metrics are below average – with the obvious exception of the US tech sector.

Table: Dash-board of valuation metrics – from red to green

As at 29 February 2020

Market	P/E	P/B	P/S	EV/S	P/CE	PEG	DY
US vs Europe*	0.4	1.6	-1.8	-1.4	0.6	0.1	1.1
US broad tech	1.1	0.7	0.5	0.7	0.2	-0.1	-0.4
United States	1.0	0.8	1.2	1.4	1.2	2.5	0.7
Europe	0.2	-0.2	0.1	1.3	0.5	1.2	-0.1
US ex-broad tech	0.7	0.3	-0.8	0.2	0.9	-1.0	-1.3
EM	0.0	-0.5	0.0	0.1	0.2	-0.1	-0.8
DM	0.4	0.4	1.1	1.7	0.9	1.8	0.4
Japan	0.4	-0.4	0.5	0.9	-0.5	2.6	-2.0

** US relative multiples are for the US excluding tech.*

Latest

Market	P/E	P/B	P/S	EV/S	P/CE	PEG	DY
US vs Europe*	-0.3	-1.2	0.1	-0.3	-1.8	-0.2	-0.8
US broad tech	0.2	0.2	0.5	0.7	-0.4	0.3	-0.9
United States	-0.2	0.1	0.3	0.5	0.3	0.6	0.3
Europe	-0.5	-0.7	-0.9	0.5	-0.3	0.4	-1.0
US ex-broad tech	-0.6	-1.0	-0.8	0.2	-1.0	-0.5	-6.6
EM	-0.6	-1.4	-0.9	-0.6	-1.2	-0.1	-1.9
DM	-0.7	-0.5	-0.2	0.7	-0.1	0.2	-0.3
Japan	-1.7	-1.6	-0.2	0.3	-1.4	1.7	-3.7

** US relative multiples are for the US excluding tech.*

Source: BNP Paribas Asset Management and FactSet

3.3) SUMMARY

Recent weeks have seen seismic moves in valuations and with good reason. The macro backdrop has shifted in a matter of weeks from gradual recovery to sharp contraction. Investors have been forced to confront the reality of massive social and economic disruption in the short run and the risk that quarantines and social distancing may become a regular part of daily life for months to come. On top of this shift in fundamentals, there has been an inevitable change in risk appetite and strains within financial markets that have exacerbated the moves in asset prices. That is all in the past and in the price. This is not the moment to be looking to sell risk.

The virus has clearly had a profound impact on valuations. The question is simply whether prices have over-shot. We do not rule out the possibility that prices have not adjusted enough. Indeed, we highlighted above the circumstances and scenarios in which we would become gravely concerned about the medium-term outlook for the economy and society. However, that is not our base case. Valuations look attractive and we are looking to add risk.

Richard Barwell – Head of macro research & investment strategy
Audrey Berthet – Junior economist
Marina Chernyak – Economist & research strategist
Guillermo Felices – Head of strategy research
Daniel Morris – Senior investment strategist
Denis Panel – CIO MAQS

Sources for data in this document: Bloomberg, FactSet, BNP Paribas Asset Management, as of 24 March 2020, unless indicated otherwise

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